

Gabreta Smart Grids

Overview

Gabreta Smart Grids aims to accelerate the digitization of the distribution grid by fostering the cross-border cooperation between Germany (Bavaria) and the Czech Republic in the location of borderland Bohemian forest.

Specific activities

- New cross-border interconnection
- Construction and modernization of high and medium voltage lines (OHL, cable) with monitoring system
- New energy storage systems, substations and transformer stations
- Deployment of smart elements to the power grid (PLC, AMM, remote-control devices, etc.)
- Optical fiber network and IT



Gabreta Smart Grids will foster the German-Czech cross-border cooperation

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Goals

***Gabreta Smart Grids* contributes to achieving the EU's energy and climate goals such as energy efficiency, further integration and interconnection in energy markets, security of supply and increasing the share of renewables.**

Project goals

- Modernization and digitization of the energy infrastructure
- Foster the cross-border cooperation mainly on the distribution level
- Preparation of the power grid infrastructure for a broader energy transition towards intermittent renewable sources
- International cooperation and knowledge sharing

Estimated time of realization: 2023-2030

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Benefits

Gabreta SG generates benefits in various areas. These benefits can be divided into three main categories – environmental benefits, economic and social benefits, as well as benefits for consumers.



Environmental Benefits

- Emission reduction due to reduction of transmission losses and possibility of integrating variable energy sources
- Integration of renewable energy sources
- Reduction of negative environmental externalities
- Creation of long-term sustainable energy system
- Lower threat to animal species



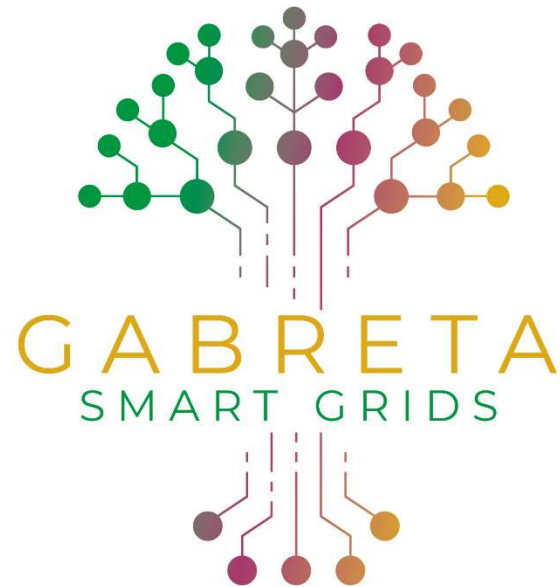
Economic / Social Benefits

- Economically efficient electricity system
- Lower transmission losses
- Reduced operation and maintenance costs of assets
- Deferred distribution capacity investments and improved capacity utilization
- Electricity cost savings through smart grid technology
- Enhanced international cooperation and involvement of more market participants



Consumer Benefits

- Enhanced quality and security of supply
- Increased grid users' connection capacities
- Enabled connection of microgeneration at the consumers' side
- Optimization of consumer consumption habits by implementation of Demand Side Management
- Reduced outage time



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